**K-5 Math Lesson Plan**

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| **Teacher:** Herbin, Tennyson, Harris, Williams | | | **Grade:** 5th | | | **Date(s)**: August 2012 |
| **Unit Title:**  Understanding the Decimal Place Value System | | | | **Corresponding Unit Task:** Lesson 4  2012 Summer Olympics—Displaying Decimals  (Teach prior to assessment task 1) | | |
| **Essential Question(s):**  How can I read and write decimal numbers to thousandths using base-ten, number name, expanded form? | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  Excerpt from Olympics (using decimal numbers), Blackline Master I-33 to I-36, I have, Who Has? Game cards | | **Student:**  Paper, pencil, 2012 Summer Olympic Excerpt | | | Ones hundreds  Thousand tenths  hundredths thousandths  expanded form number name  base-ten numeral place value | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  √ 1. Make sense of problems and persevere in solving them.  √ 2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  √ 4. Model with mathematics.  5. Use appropriate tools strategically.  √ 6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:**  **5.NBT.3a**  Read and write decimal numbers to thousandths using base-ten, number name, expanded form. | | | | | |
| **I Can Statement(s):**  • I can read decimals to the thousandths using base-ten numerals.  • I can read decimals to the thousandths using number names.  • I can read decimals to the thousandths using expanded form.  • I can write decimals to the thousandths using base-ten numerals.  • I can write decimals to the thousandths using number names.  • I can write decimals to the thousandths using expanded form.  • I can use base-ten numerals to form decimals to the thousandths using base-ten numerals.  • I can use base-ten numerals to form decimals to the thousandths using number names.  • I can use base-ten numerals to form decimals to the thousandths using expanded forms. | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Play I have, Who Has? (see below) With the class. | | | | | |
| **Teacher Directed:**  Using an excerpt from the Olympics, read piece to students and pull out numbers. Then discuss their attributes and how to classify the numbers into the three different forms. | | | | | |
| **Guided Practice:**  Place the students in groups of 2 or 3 and distribute the article excerpt, “2012 Summer Olympics.” <http://education.nationalgeographic.com/education/news/2012-summer-olympics/kd/?ar_a=3#page=1> Have the groups read the article together. One student should highlight the numbers that they see in the article, while another member writes each highlighted number on separate index cards.  • Have them classify the numbers into two or more piles creating at least two categories with an observable attribute.  • Have the students take their classifications and share them with the class by displaying them on a wall or on a piece of chart paper.  • Have the students take a gallery walk examining the other groups’ work. After the gallery, walk pose these questions: 1) What do the numbers in each group have in common? 2) Why did you classify the numbers the way you did? 3) Were there any responses from the other groups that surprised you?  •From your readings chose the event you would like to research and report on from the 2012 Summer Olympics for your final audition. | | | | | |
| **Independent Practice:**  Have students work in teams (or individually) to Build Their Number (Blackline Master I-33 to I-36 –www.ncpublicschools.org, curriculum, math, elementary resouces, 3-5 resources, Grade 5 Blackline masters p. 33-56.) [http://mathlearnnc.sharpschool.com/UserFiles/Servers/Server\_4507209/File/Instructional%20Resources/G5V2BL2.pdf](https://webmail.gcsnc.com/owa/redir.aspx?C=eeaa1bb0cfb548ffbb3a1d1e7c17d579&URL=http%3a%2f%2fmathlearnnc.sharpschool.com%2fUserFiles%2fServers%2fServer_4507209%2fFile%2fInstructional%2520Resources%2fG5V2BL2.pdf)) | | | | | |
| **Closing/Summarizing Strategy:**  Teams to share their numbers and rationale for obtaining them. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| • Using the same numbers students re-classify the numbers into different categories.  • Students develop a product to compile categories created by their classmates and analyze the data gathered to draw conclusions. | | | • Students listen to an audio version of the 2012 Summer Olympics article.  • Numbers may need to be simplified for student use.  • Teacher may limit student choice for the sport to research. | | | • Build background for the engaging scenario. Before distributing the article “2012 Summer Olympics,” use video clips and other visuals for connecting to students’ experiences and prior knowledge. Lead a discussion that makes use of key non-math vocabulary from the article.  Make cultural connections: Students share experiences about sports from their backgrounds and the Olympics.  Writing to Learn: After key points in the unit (after each task?), have students write in a journal using the following sequence:  • Record: state what they have learned  • Compare: Students pair up and compare what they have written and clarify.  • Revise: Based on the interaction, students create a more developed and polished version of their statements.  • Combine: Students collaborate to mesh their summaries  • Review: Students use previous entries to prepare and guide them through subsequent tasks.  (Adapted from “Writing to Learn” by Robert Marzano in Educational Leadership, February 2012.) |
| **Assessment(s):** Review task 1 based on teacher observations to student responses. | | | | | | |
| **Teacher Reflection:** (Next steps?)   * What went well? * Student understanding/misconceptions. * Specific notes about students’ thinking. * What do I need to reteach/review tomorrow or in the future? * New ideas or changes for next time? | | | | | | |

For the teacher:

This card set is for 26 children. If you have less children in your grade, take off the first card/s. If you have more children in your grade, add cards at the beginning.

Print onto coloured paper, laminate and cut along the dotted lines.



|  |  |  |
| --- | --- | --- |
| START  I have 97.  Who has the number that is 1 hundred, 2 tens and 6 ones? | I have 126.  Who has the number that is 200 + 10 + 6? | I have 216.  Who has the number that is 3 hundreds, 5 tens and 0 ones? |
| I have 350.  Who has the number that is 400 + 70 + 7? | I have 477.  Who has the number that is 5 hundreds, 4 tens and 3 ones? | I have 543.  Who has the number that is 600 + 50 + 4? |
| I have 654.  Who has the number that is 7 hundreds, 3 tens and 0 ones? | I have 730.  Who has the number that is 800 + 40 + 4? | I have 844.  Who has the number that is 9 hundreds, 1 ten and 1 one? |
| I have 911.  Who has the number that is 100 + 80 + 0? | I have 180.  Who has the number that is 2 hundreds, 6 tens and 2 ones? | I have 262.  Who has the number that is 300 + 90 + 9? |
| I have 399.  Who has the number that is 4 hundreds, 3 tens and 3 ones? | I have 433.  Who has the number that is 500 + 40 + 1? | I have 541.  Who has the number that is 6 hundreds, 3 tens and 1 one? |

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| I have 631.  Who has the number that is 700 + 60 + 0? | I have 760.  Who has the number that is 8 hundreds, 8 tens and 7 ones? | I have 887.  Who has the number that is 900 + 90 + 2? |
| I have 992.  Who has the number that is 1 hundred, 5 tens and 8 ones? | I have 158.  Who has the number that is 200 + 10 + 7? | I have 217.  Who has the number that is 3 hundred, 8 tens and 1 ones? |
| I have 381.  Who has the number that is 400 + 30 + 8 | I have 438.  Who has the number that is 5 hundred, 6 tens and 6 ones? | I have 566.  Who has the number that is 600 + 20 + 1? |
| I have 621.  Who has the number that is 7 hundred, 8 tens and 9 ones? | I have 789 and I am THE WINNER! |  |

Children sit around in a circle. Each child has a card. The child with the START card stands up and reads his/her card. The child that has the next number stands up and reads and so on until the last child reads his/her card.



**I have…**

**Who has…?**